

## STATE OF COLORADO

Bill Owens, Governor  
Douglas H. Benevento, Executive Director

*Dedicated to protecting and improving the health and environment of the people of Colorado*

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Colorado Department  
of Public Health  
and Environment

February 5, 2004

Robert E. Roberts  
Regional Administrator  
United States Environmental  
Protection Agency - Region 8  
999 18<sup>th</sup> Street, Suite 300  
Denver, CO. 80202-2466

Subject: Proposed 8-hour Ozone Standard Nonattainment Boundary

Dear Mr. Roberts:

Governor Owens has asked me to respond to your December 3, 2003 letter on this issue. Due to our commitment to excellent air quality, as of Spring 2003, all areas of the State of Colorado had achieved attainment with all National Air Quality Standards, including the 1-hour ozone standard.

The Colorado Department of Public Health and Environment (CDPHE) has been tracking trends from its monitors for years and realized in 2002 that the Denver metropolitan area was in danger of exceeding the new, more restrictive 8-hour ozone standard. Accordingly, on December 31, 2002, before the new standard had been violated, CDPHE, the Colorado Department of Transportation, the Denver Regional Council of Governments (DRCOG), the Air Quality Control Commission (AQCC), and the Regional Air Quality Commission (RAQC) entered into an agreement with EPA that provides for early action by the state to bring the Denver metropolitan area into attainment with the new standard.

As you note in your letter, the parties to the Early Action Compact have made substantial progress in meeting the requirements and milestones in that agreement and I look forward to submitting the State Plan to you later this year, after approval by the General Assembly.

As part of the plan preparation, CDPHE and the RAQC have engaged in substantial gathering and analysis of source and meteorological data and state-of-the-art modeling of future trends in ozone formation. The EPA has provided both technical and financial support for these efforts, for which we thank you. The analysis and modeling is on-going and continues to be refined, with the input of a diverse group of stakeholders that includes local government, industry, academic, and environmental group representatives.

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The Clean Air Act defines a nonattainment area as any area that does not meet or that contributes to ambient air quality in a nearby area that does not meet a national air quality standard. It is important that the boundary of the area capture those areas that are experiencing or significantly contributing to the problem.

It is not clear from the information developed to date that all of the areas EPA is proposing need to be within the nonattainment area under those criteria. In particular, there are areas within the proposed boundary that do not contain significant sources of ground-level ozone precursors, or that due to topography, meteorology, or other factors do not contribute to the problem. Areas that do not contribute to the problem should not be subject to the burdens of a possible nonattainment designation. Therefore, I am suggesting that the 11-county nonattainment boundary described in your December 3 letter be modified to include all of Broomfield, Boulder, Denver, Douglas, and Jefferson counties, and portions of Adams, Arapahoe, Larimer, and Weld counties, and none of Morgan and Elbert counties. The attachment to this letter provides a more detailed explanation.

Please have the appropriate staff person contact Margie Perkins, Director of the Air Pollution Control Division, at (303) 692-3101 to schedule a discussion of the data that addresses the criteria for designation.

Sincerely,

A handwritten signature in black ink, appearing to read "DSB", with a long horizontal stroke extending to the right.

Douglas H. Benevento  
Executive Director

Attachment

cc: Margie Perkins, Director, Air Pollution Control Division, CDPHE  
Richard Long, EPA Region 8

**Enclosure:**  
**Recommended Boundary for the 8-hour Ozone Nonattainment Area**  
**Colorado Department of Public Health and Environment**

**February 6, 2004**

On December 3, 2003, EPA recommended that the Denver/Front Range ozone nonattainment boundary include all 8 counties of the Denver-Boulder-Weld Consolidated Metropolitan Statistical Area (CMSA). This CMSA includes all of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, and Weld Counties. EPA also recommends that all of Elbert, Larimer, and Morgan Counties be included in the nonattainment area. It is EPA's position that this area comprises an airshed where ozone precursor emissions sources either cause or contribute to high ozone levels measured throughout the area. Monitoring sites in Jefferson and Douglas Counties have violated EPA's 8-hour ozone National Ambient Air Quality Standard, and monitors in Arapahoe, Larimer, and Weld Counties are in danger of measuring violations of the standard.

Upon review of the topography, meteorology, and locations of emissions sources in the region, CDPHE concurs that much of this area should be included within the nonattainment area boundary when EPA publishes a final rulemaking in the Federal Register by April 15, 2004. However, CDPHE suggests that portions of Adams, Arapahoe, Larimer, and Weld Counties, and all of Elbert County and Morgan County not be included as part of the nonattainment area.

For Larimer County, the northern and western portions of the county should be excluded from the nonattainment area due to the lack of sources that emit ozone precursor emissions, and due to terrain features that logically exclude these areas from being considered as part of the airshed. In summary, the mountainous part of the county north of Rocky Mountain National Park (north of 40°33'17.4" North Latitude and west of 105°29'40.0" West Longitude), and the northern, rural portion of the county above the town of Wellington and east to the Weld county line (north of 40°42'47.1" North Latitude) should not be included in the nonattainment boundary. The elevated terrain features of the Rocky Mountains (which runs through the western portion of the county), and the Cheyenne Ridge (which runs through the northern portion of the county), coupled with the lack of significant volatile organic compound (VOC) and nitrogen oxide (NOx) emission sources, justify the exclusion of this area from the nonattainment boundary.

For Weld County, the Division recommends that the northern portion of the county be excluded from the nonattainment area due to the lack of sources that emit ozone precursor emissions, and due to terrain features that logically exclude this area from being considered as part of the airshed. In summary, the northern, rural portion of the county north of Highway 14 (north of 40°42'47.1" North Latitude) and east to the Logan county line should not be included in the nonattainment boundary. The elevated terrain feature of the Cheyenne Ridge (which runs through the northern portion of the county), coupled with the lack of significant VOC and NOx emission sources, justify the exclusion of this area from the nonattainment boundary.

For Elbert County, the entire county should be excluded from the nonattainment area due to the lack of sources that emit ozone precursor emissions, and due to terrain features that logically exclude this area from being considered as part of the airshed. In summary, the entire county should not be included in the nonattainment boundary. The elevated terrain feature of the Palmer Divide (which runs through the entire county), coupled with the lack of significant VOC and NO<sub>x</sub> emission sources, justify the exclusion of this area from the nonattainment boundary.

For Weld, Adams and Arapahoe Counties, the eastern portions of these counties should be eliminated from the boundary. Regarding Morgan County, if a portion of Morgan County must be included in the boundary, the eastern portion of this county should be eliminated. Eliminating this area from the recommended boundary is based on the extended distance that precursor emissions would have to travel in order to cause or contribute to high ozone concentrations. This boundary line should be drawn north-south through Morgan County west of Ft. Morgan (Ft. Morgan is not included in the boundary) along 103°53'00" West Longitude. The boundary extends directly north into Weld County, where it intersects the boundary line described above (40°42'47.1" North Latitude), and south through Adams and Arapahoe Counties, where it intersects the Elbert County Line north of the Town of Agate.

For Boulder, Broomfield, Denver, Douglas, and Jefferson Counties, all portions of these counties should be included in the nonattainment area as recommended by EPA.

The attached map illustrates the proposed 8-hour ozone nonattainment area boundary.

**Ozone Nonattainment Area**

This map displays the Ozone Nonattainment Area (NAA) boundary in Colorado, which encompasses parts of Larimer, Weld, Boulder, Broomfield, Adams, Arapahoe, Jefferson, Douglas, Elbert, Teller, and El Paso counties. The Rocky Mountain National Park is shown as a shaded area in the northwest. Major point sources are indicated by black circles of varying sizes, representing different emission levels. A legend in the bottom right corner identifies symbols for cities (small squares), the Partial NAA Boundary (thick black line), and Major Point Sources (black circles). County names labeled include Logan, Morgan, Washington, Lincoln, Fremont, Chaffee, Park, Summit, Clear Creek, Gilpin, Grand, and Weld.

100 Tons/Year and Over